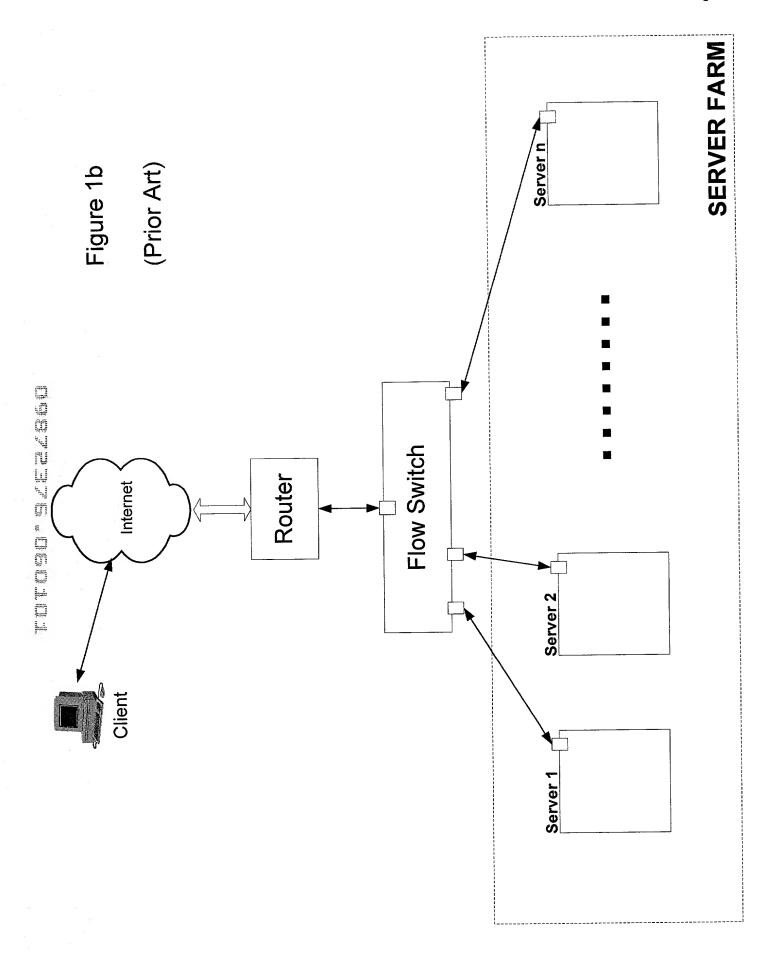
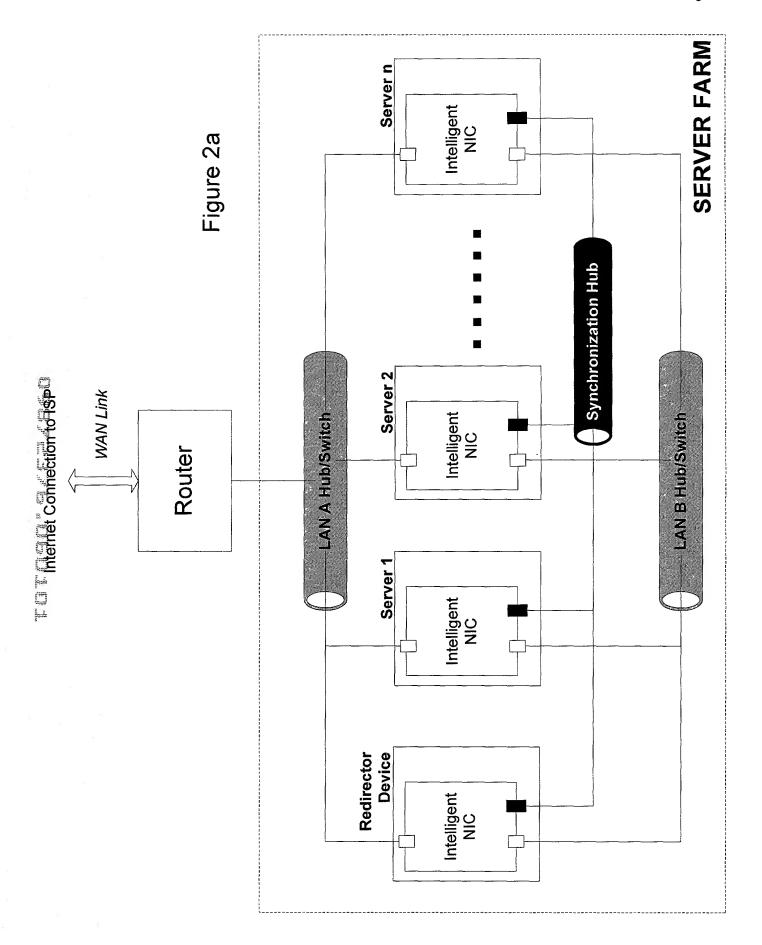
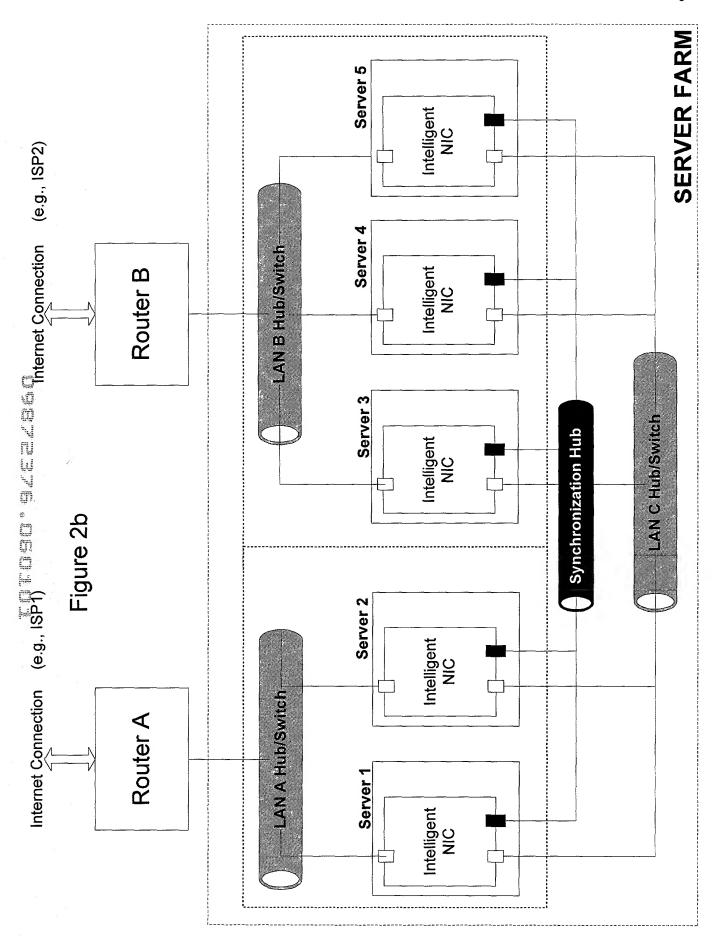
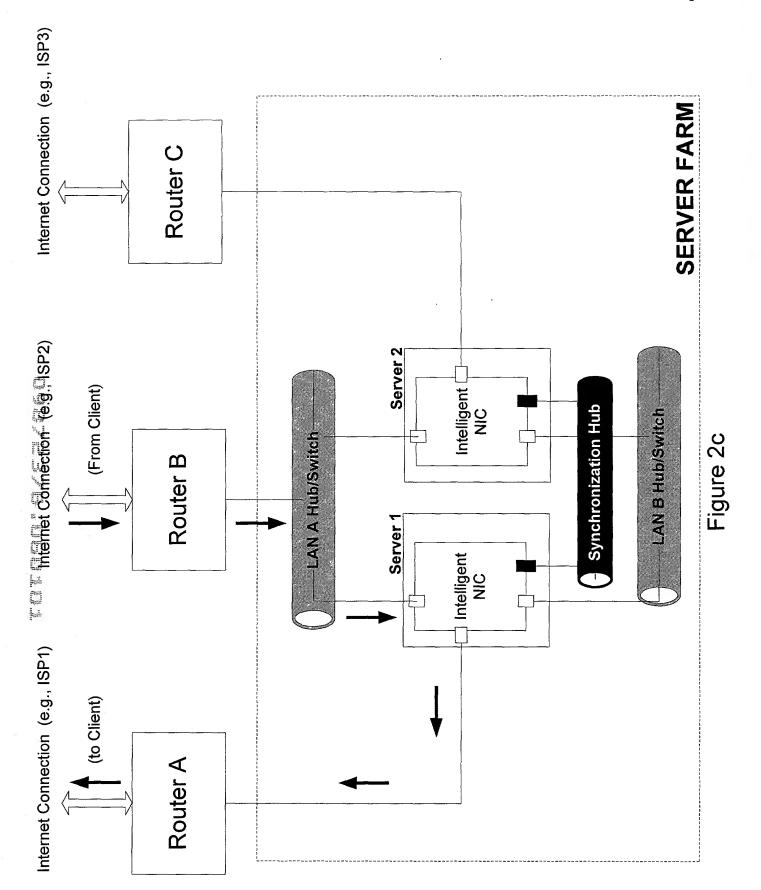


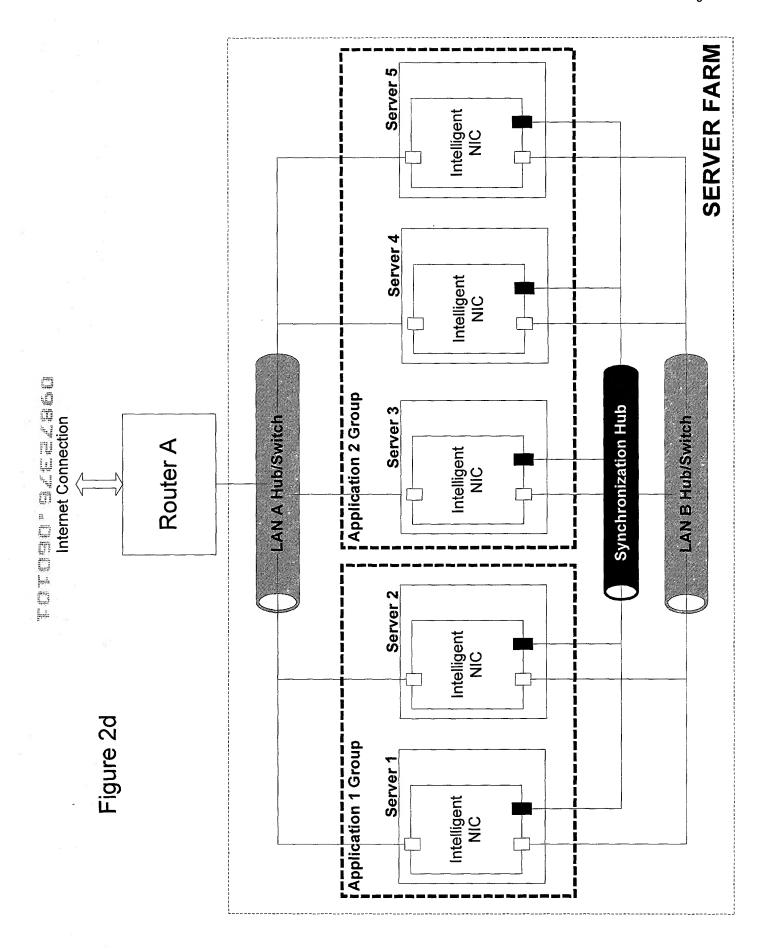
Figure 1a

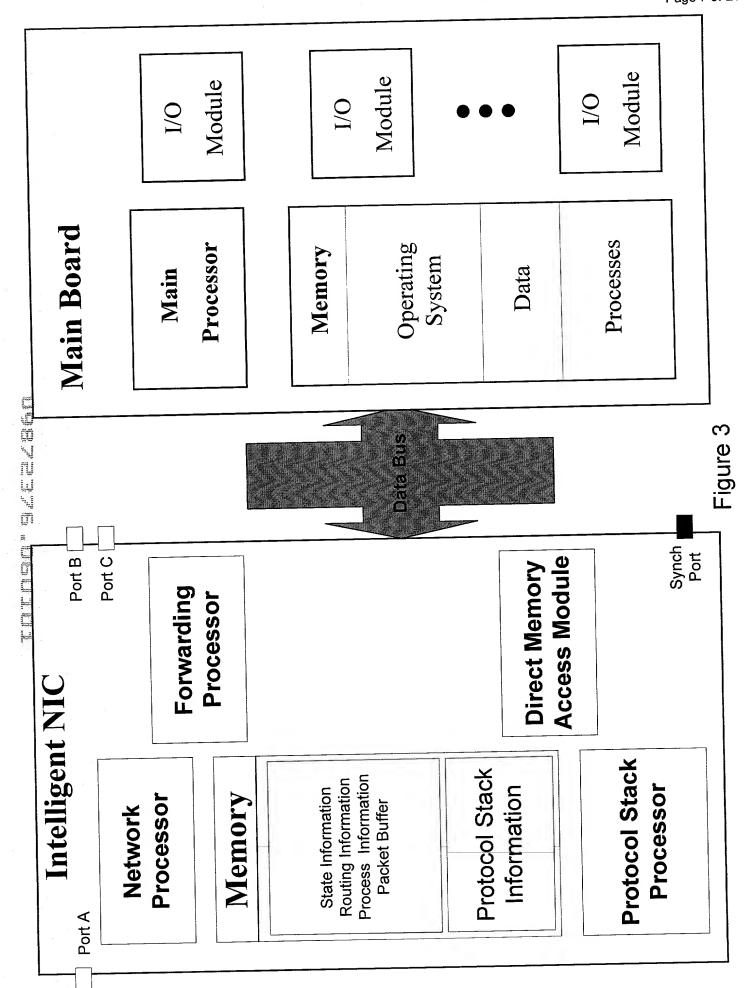


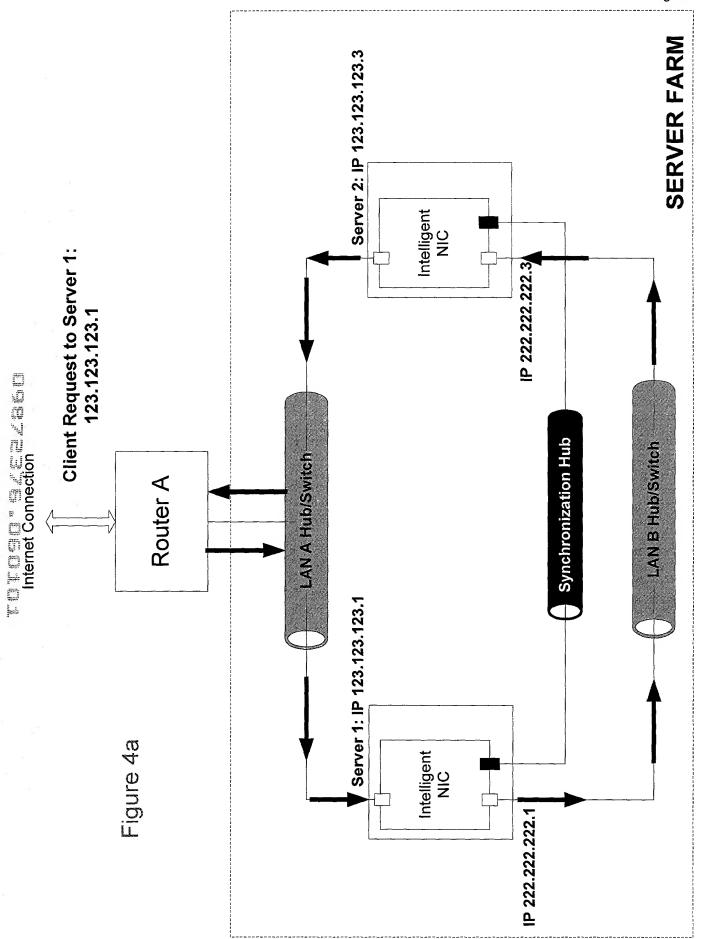


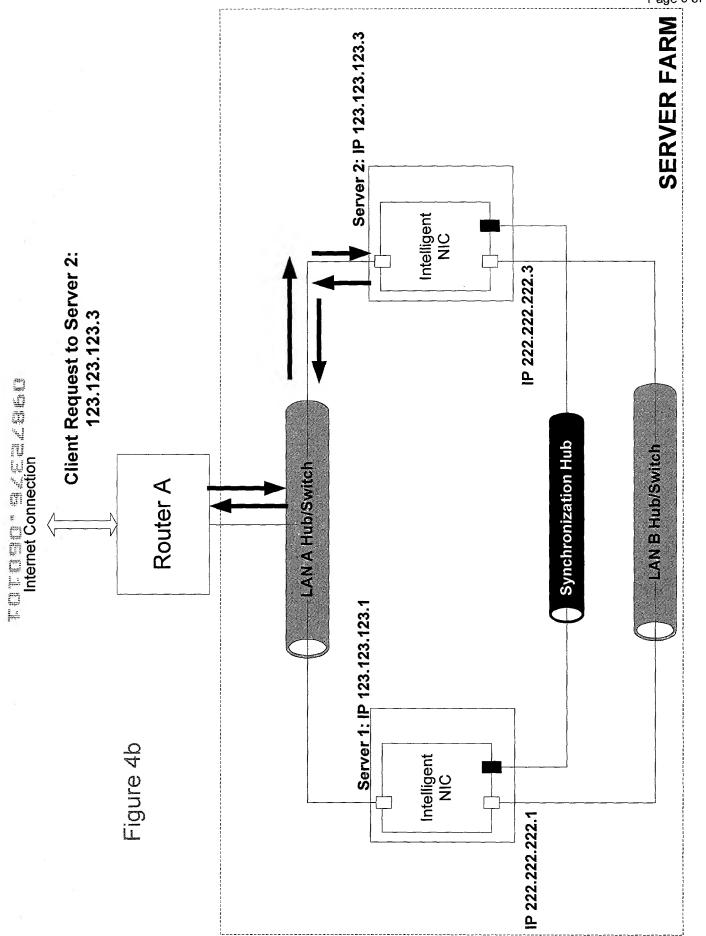


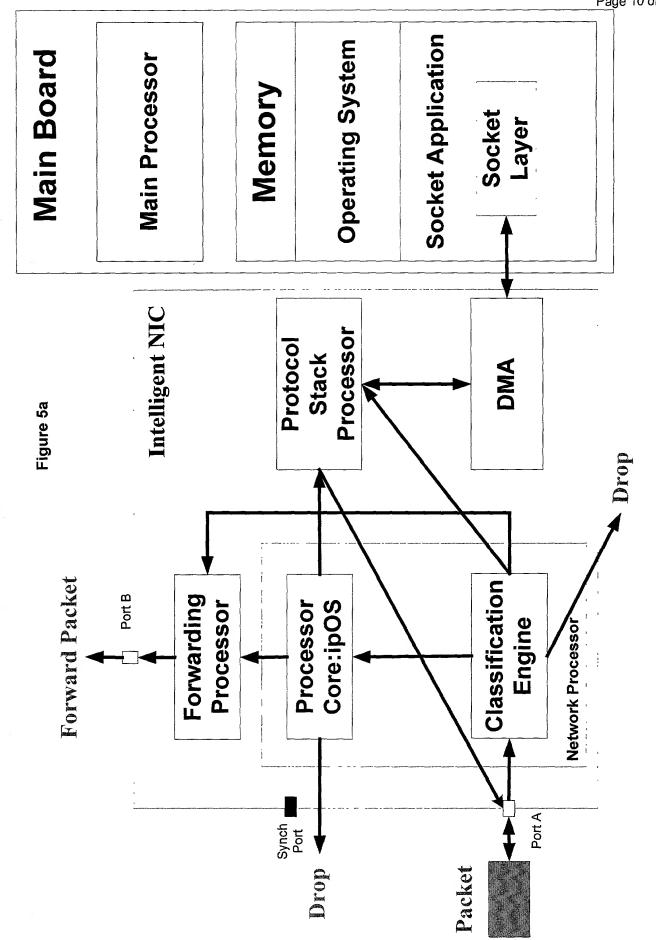


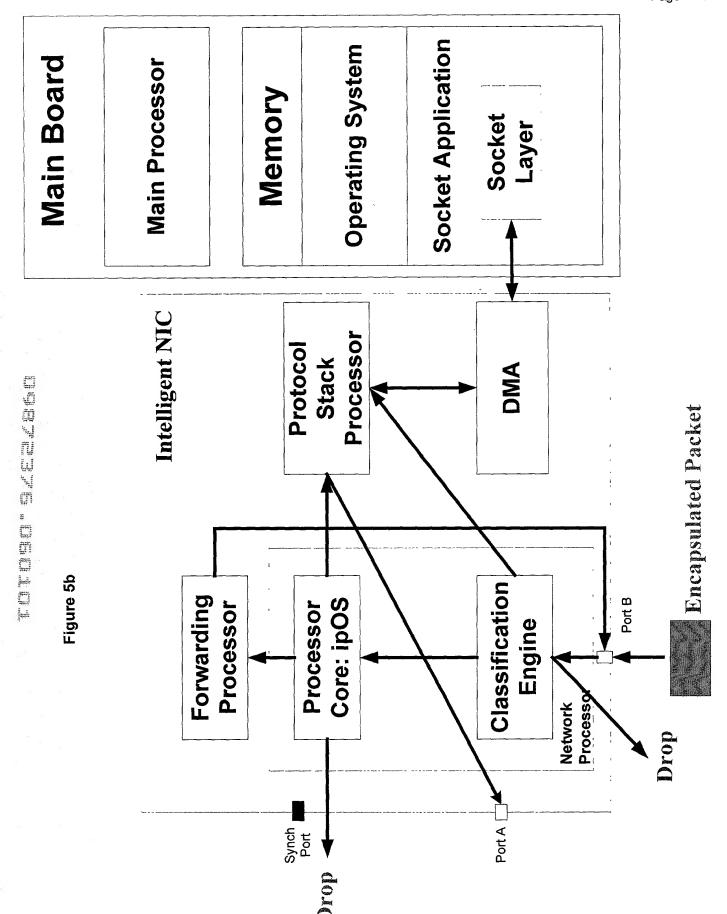












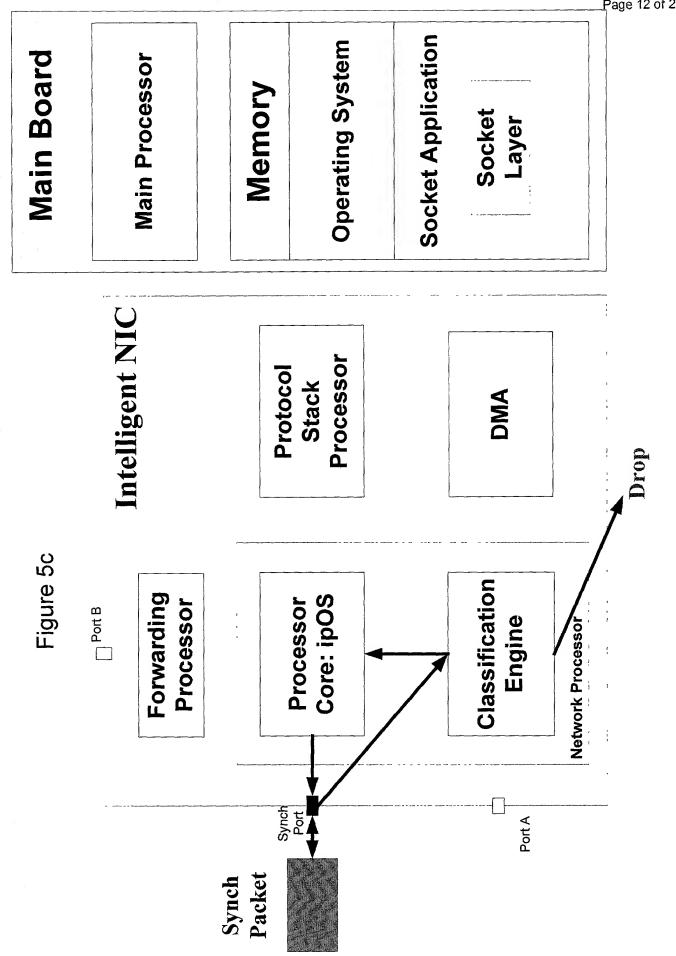
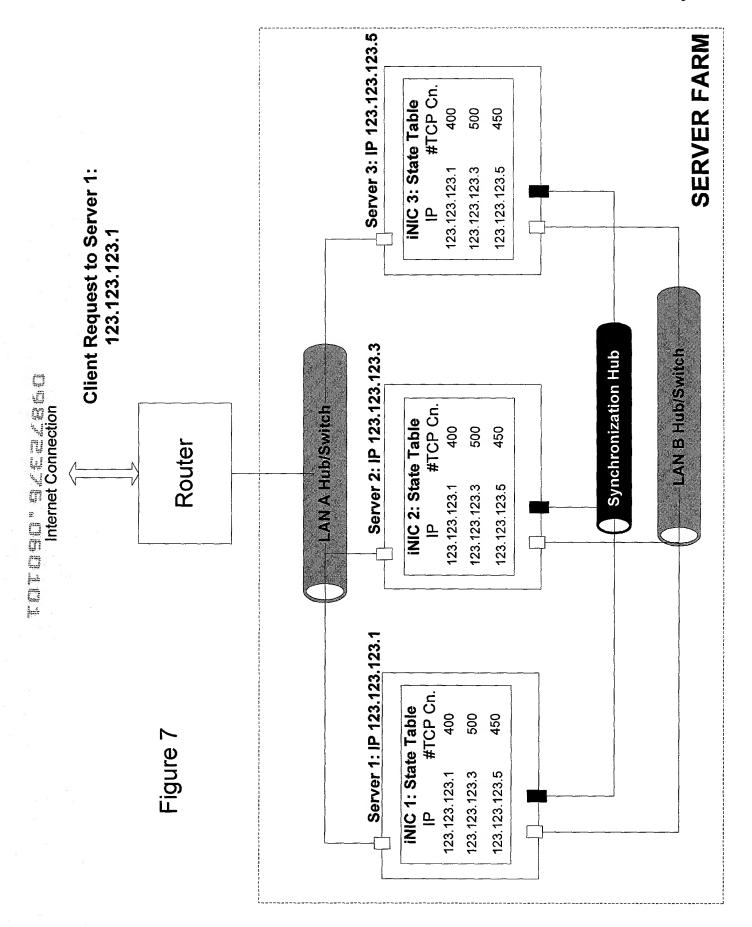
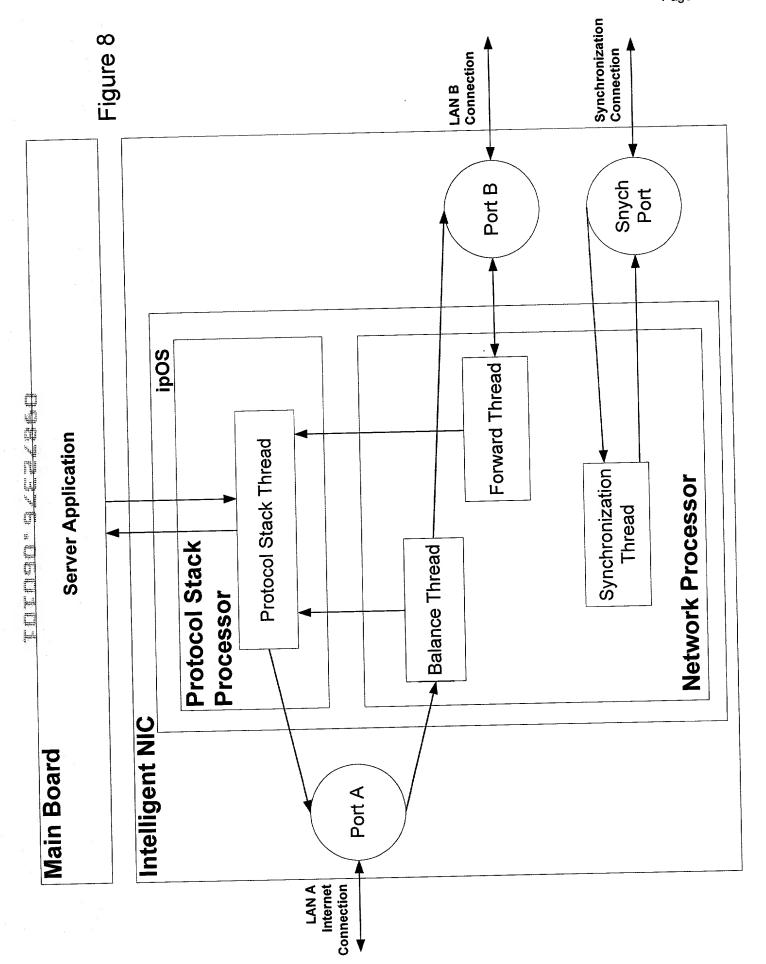
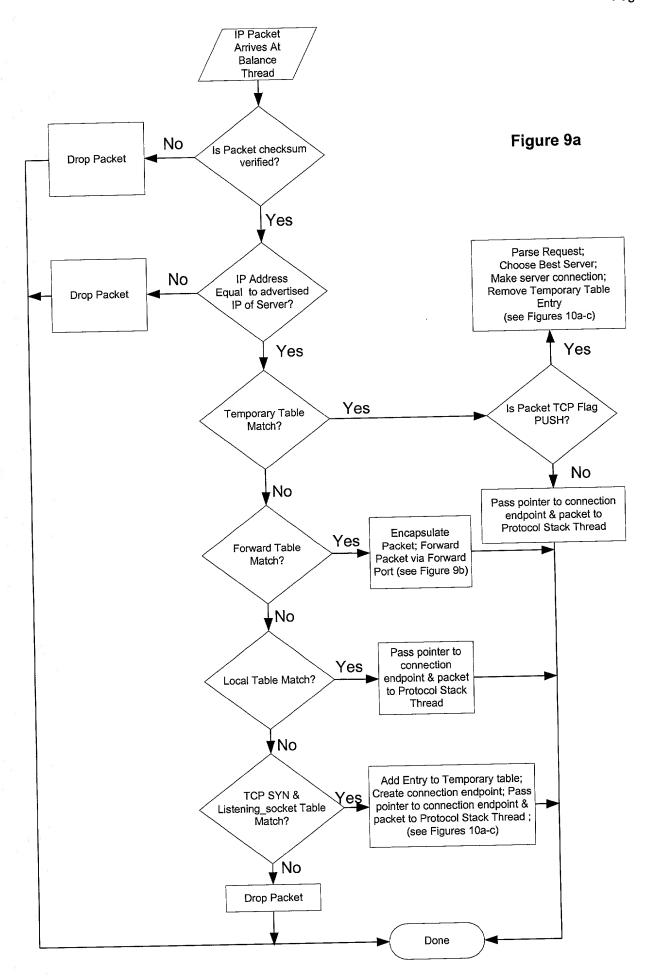
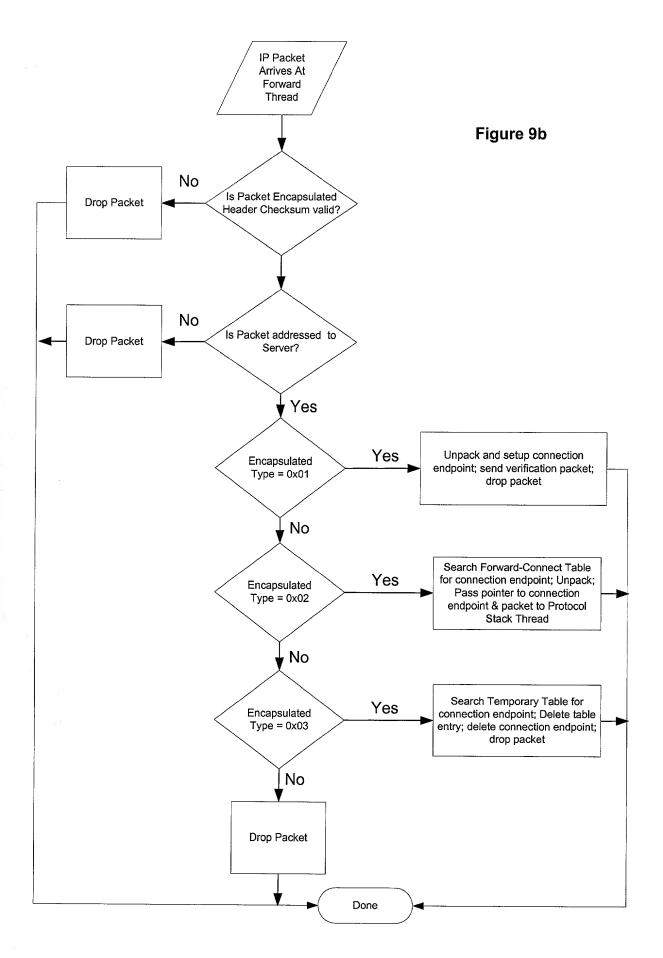


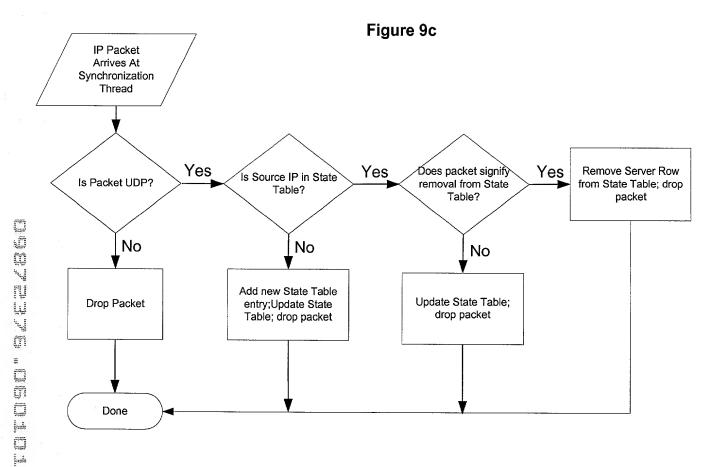
Figure 6

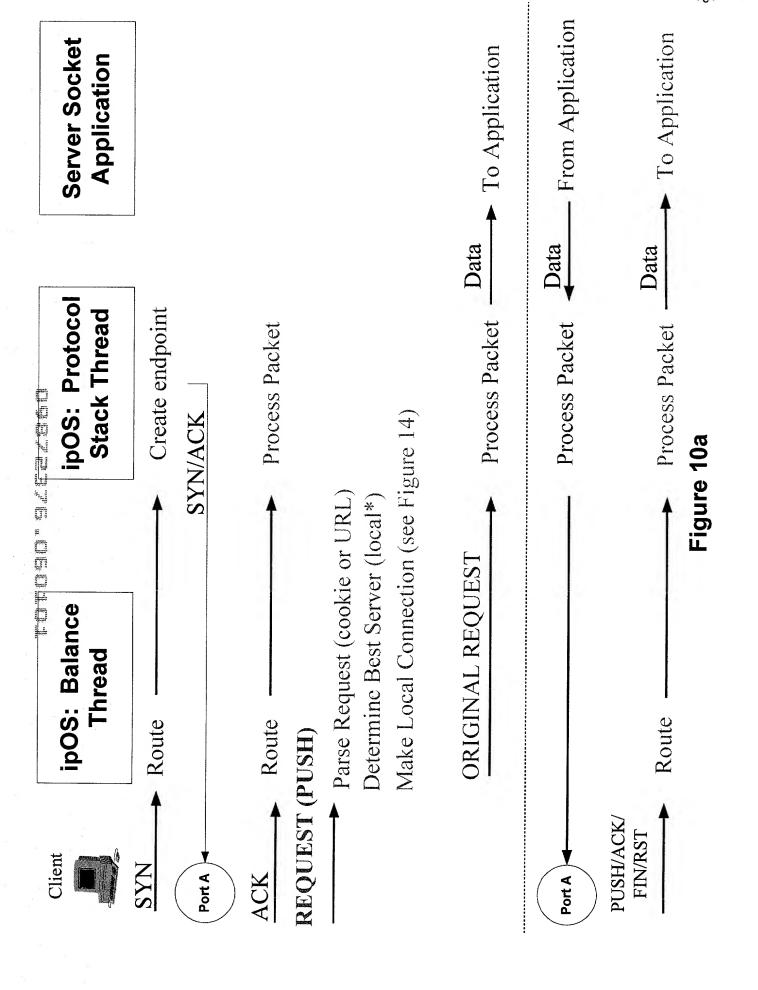


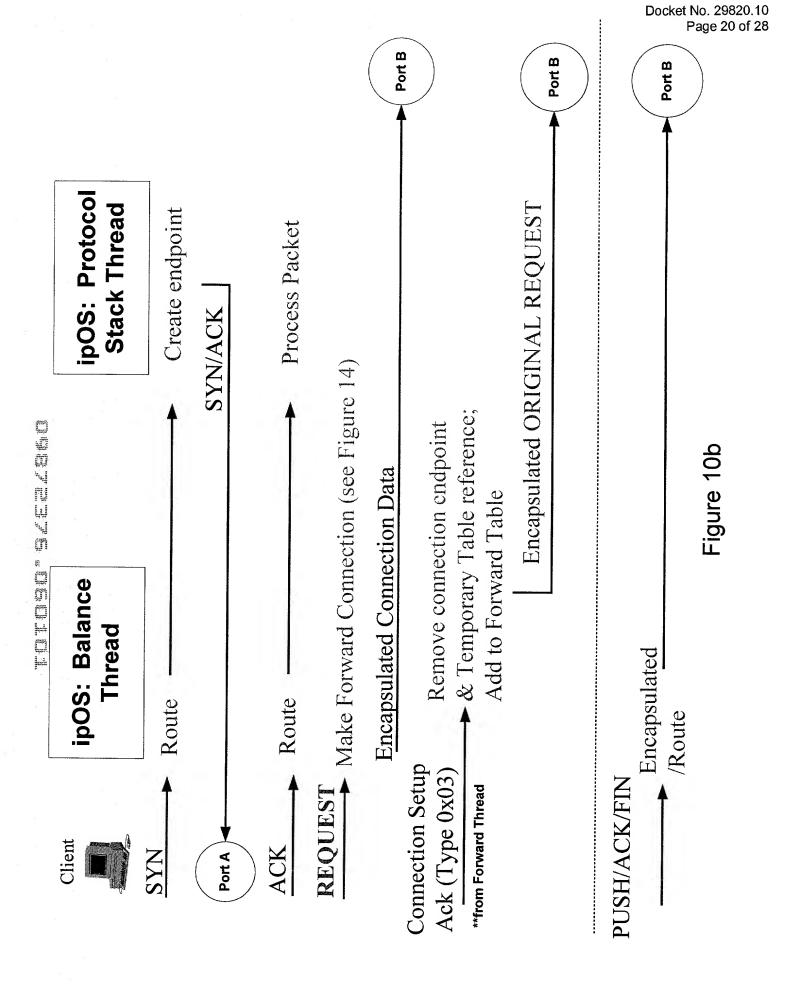












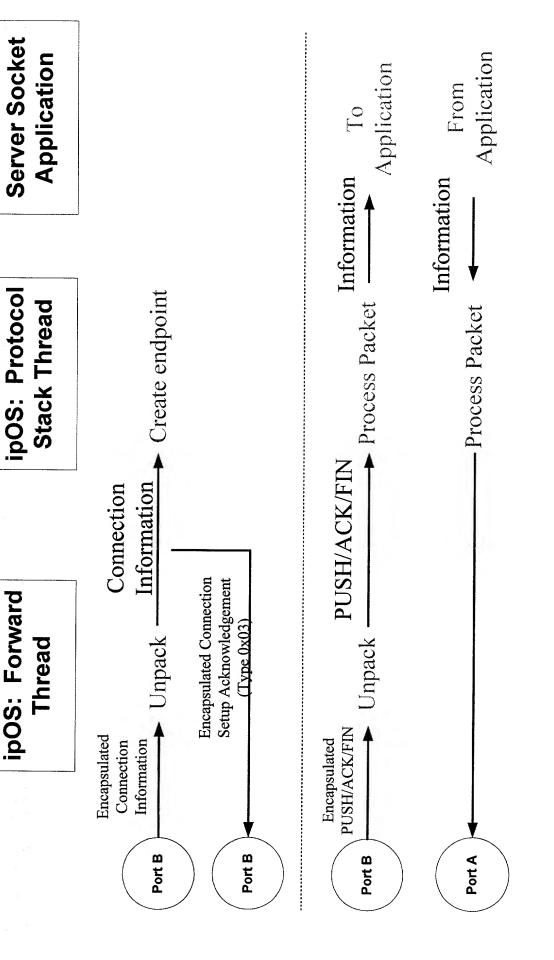


Figure 10c

Ethernet En	capsulation	Header
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MAC Destination	MAC Source	Type	Figure '
Address	Address	0x007	
6	6	2	(Prior A

ipOS Encapsulation Header

Source IP	Source Port	Dest. IP	Dest. Port	Type	Protocol	Checksum	Figure 11b
4	2	4	2	1	1	2	

ipOS Connection Information (UDP)

Server IP	Server Port
4	2

ipOS Connection Information (TCP)

Server IP	Server Port	TCP Control Block Information	Figure 11d
4	2	140	

ipOS TCP Connection Packet (Type=0x01; Protocol=0x01)

Ethernet Encap. Type =0x007	ipOS Encap. Header	TCP ipOS Connection Information	Figure 11e
14	16	146	

ipOS UDP Connection Packet (Type=0x01; Protocol=0x02)

Ethernet Encap. Type =0x007	ipOS Encap. Header	UDP ipOS Connection Information	Figure 11f
14	16	6	

ipOS TCP Packet (Type=0x02; Protocol=0x01)

Ethernet Encap. Type =0x007	ipOS Encap. Header	IP/TCP Packet	Figure 11g
14	16	40 + Data	

ipOS UDP Packet (Type=0x02; Protocol=0x02)

Ethernet Encap. Type =0x007	ipOS Encap. Header	IP/UDP Packet	Figure 11h
14	16	28 + Data	

ipOS Endpoint Migration Acknowledgement Packet (Type=0x03)

Ethernet Encap.	ipOS Encap.
Type =0x007	Header
14	16

Forward Table

Key	Field	Description
Yes	Source IP Address	IP address of Client
Yes	Source TCP Port	TCP Port of Client
No	Destination IP Address	IP Address to Forward
No	Destination TCP Port	TCP Port to Forward

Local/Forward-Connect/Temporary Table

KEY	Field	Description
Yes	Source IP Address	Client IP address
Yes	Source Port	Client TCP Port
Yes	Destination IP Address	Endpoint IP Address
Yes	Destination Port	Endpoint TCP Port
No	Endpoint Reference	Reference to Connection Endpoint

Server State Table

Key	Field	Description
Yes	Server IP Address	Server
No	Number TCP Connections	TCP Established Connections
No	CPU utilization	Main board CPU utilization
No	Available memory	Unused memory on Main Board
No	Available Bandwidth	Unused Bandwidth Capacity

Listening Sockets Table

Key	Field	Description
Yes	Server IP Address	Server
Yes	TCP Port	Advertised TCP Port
No	Process	Application process advertising IP/Port

Application Information Table

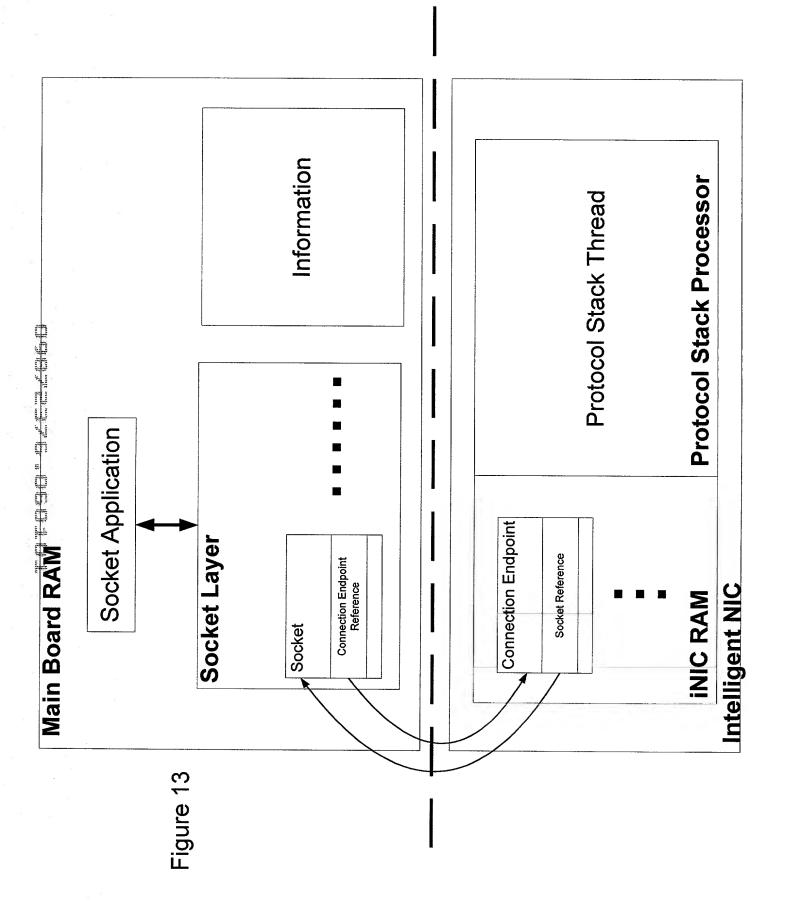
Key	Field	Description
Yes	Process ID	Application identification
No	Process memory requirements	Memory required to run application
No	Process CPU Utilization	Measure of application CPU utilization

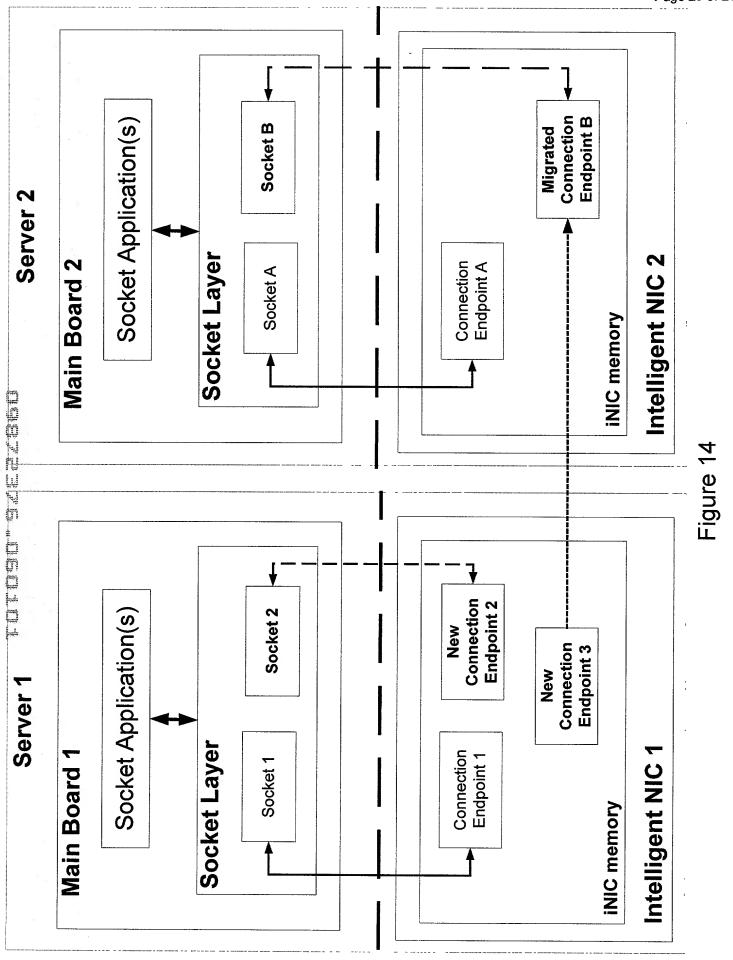
URL Map Table

Key	Field	Description
Yes	URL	Universal Resource Locator
Yes	Server IP Address	IP address of associated server

Cookie Map Table

Key	Field	Description
Yes	Cookie ID	Cookie Identification tag
No	Server IP Address	IP address of associated server





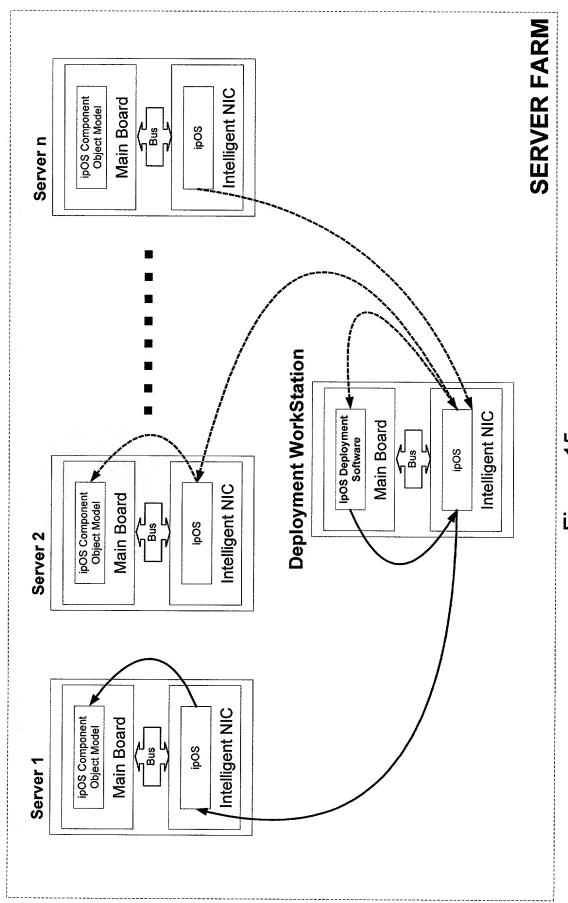


Figure 15

ipÓS Component Operating System Object Model Main Board RAM Server 2 Intelligent NIC 2 ipOS **NEW Process 1** Processes Process n Component Object Model Operating System ipOS Main Board RAM Server 1 Intelligent NIC 1 ipos Processes Process m Process 1

Figure 16

ipOS Component **Object Model** Object 1 Object 2 Object r Main Board RAM Intelligent NIC 2 Server 2 ipos Processes Process 1 Process n Object 1 ipOS Component **Object Model** Object 1 Object 2 Object q Main Board RAM Intelligent NIC 1 Server 1 ipos Create Object 1 Processes Process m Process 1

Figure 17